• HEALTH •

EDITED BY

DR. ANDREW WILSON, F.R.S.E., &c.

LONDON: *FRIDAY, DECEMBER* 21, 1883.

CONTENTS OF No. 37.

	PAGE
Notes by the Way	177
Original Essays:—	
Ship-Surgeons: What they are and what they should be. By Dr. Domett Stone, F.R.C.S.	178
Cottage Hospitals: Their Cost. By G. A. Gibson, F.R.C.P.E.	179
How to Become Thin or Fat. IX. By a Surgeon to several Metropolitan Hospitals	180
Personal Health:—	
Mackintoshes. By P. Foster	181
The Family Circle:—	
Health in the Schoolroom. By J. J. Pope, M.R.C.S.	182
Healthy Houses:—	
Drain and Closet Construction, and Health. By B. H. Thwaite	183
Recreation and Health:—	
Physical Education in America. II. By D. A. Sargent	185
Jottings from the Journals	186
Our Bookshelf	187
Our Letter-Box	188

Notes By the Way

"Health is the foundation of all our physical happiness."—*Herder.*

As in duty bound, we must cordially wish the readers of HEALTH "The Compliments of the Season," and add our wishes that the advent of the festive period of the year may prove to one and all a time of true and healthy enjoyment. We do not need to remind our readers that the Christmas season is one which necessitates special care and precautions from a health point of view. Temptations to over-indulgence in "good cheer" are numerous at the present time; and the external influences of cold and chill require to be guarded against by special attention to the clothing of young and old alike. All that need be said on the health-aspects of Christmastide and New Year may be summed up in the statement that moderation in all things is one of the highest virtues we can exercise; and that the cultivation of the "happy mean" in every detail of personal life, is the surest method of obtaining from existence the greatest amount of true pleasure and profit.

✣ ✣ ✣

APPROPRIATELY enough, the season of "peace and goodwill" appears to be marked by an increased amount of activity in the culture of kindness towards, and interest in, the poor and the wretched. It would seem as if the nation at large was being stimulated to the performance of good works and charitable acts. Two notable appeals have just been made on behalf of the bettering of the masses, and in aid of the idea that it is possible to make the lives and lots of the lower orders brighter and happier than they have hitherto been. What has been called "An East-End Recreation Scheme," was ventilated at the Mansion House, London, last week under the presidency of the Lord Mayor. It appears that a certain John Beaumont left a fund (now amounting to £12,000) to be applied towards furthering "the rational amusement and instruction of the people." The idea mooted at the Mansion House was the eminently useful and practical one of constructing a large place of popular resort in the form of a winter garden, concert-hall, reading-rooms, and a public institute, where musical entertainments and every other form of innocent enjoyment could be given to the people of the East-End.

✣ ✣ ✣

READERS of Mr. Besant's charming novel, "All Sorts and Conditions of Men," will remember that a scheme of this nature is propounded and carried into practical effect by the heroine of the story. It would therefore seem as though the Beaumont Fund was destined to realise the novelist's idea; and "the sooner the better" say we. As was pointed out in our earlier numbers, the means of amusement possessed by the poor are limited in the extreme. Persons who are given to deplore the wickedness, drunkenness, and so forth of the masses, too often forget that the poor are entirely destitute of the means to make life even a little bright. When ardent temperance reformers deplore the influence of the public-house, and speak of the compulsory closure of the grog shops, wiser people can see they are only "barking up the wrong tree." The public-house, unfortunately, in itself represents in poorer districts the varied means of enjoyment and amusement possessed by the middle classes. The poor, having no other place wherein to spend their hours of leisure, find some solace for the time being in the gin-palace, which is at least warmer than the street corner, and a great deal more comfortable than their homes. To reform intemperance and crime, and to start poor people on the way of well-doing, we must never forget that they are human beings—a fact many well-meaning persons seem to forget—with the same sympathies, fondness for pleasure, desires to be happy, and delight in being amused, possessed by their more fortunate neighbours. If we are to combat intemperance, to reform vice, and to better the life of the slums, we must begin by presenting counter-attractions to the public-house and the low music-hall. And it is precisely this great and benevolent end that the proposed application of the Beaumont Fund seems likely to accomplish.

✣ ✣ ✣

AT the Mansion House meeting last week Professor Huxley made a stirring appeal on behalf of the objects for the promotion of which the meeting was convened. The Professor's experiences in medical practice among the slums were not, of course, novel, but they were stated with singular force and power. His assertion that the vast majority of poor persons who seek medical advice really suffer from a kind of slow starvation, "mitigated by bread and the stuff to which they give the name of tea," simply restates the experience of every medical student who goes through "dispensary practice" in any great city. Life in the East-end is an existence "of supernatural and perfectly astonishing deadness and dulness," and, added the Professor, "there was nothing to diversify the dull round of poor existence except what they found in the lowest class of public-house." This is a description in a nutshell of the life which must be brightened, and now that the ball has been set rolling let us earnestly hope it will continue to progress, and to crush out in its advance some of the miseries of the hydra-headed poverty and crime that abound.

✣ ✣ ✣

THOSE who care to know what a number of earnest-minded workers have already done for the advancement of the lower orders in the East End of London should read Miss Caroline A. Martineau's account in HEALTH No. 3 (page 43) of the entertainments which have for some time been successfully given at the Royal Victoria Coffee Hall in the Waterloo-road, formerly the Victoria Theatre, or more familiarly the "Vic" of East Enders. We should recognise the labours of those who, unaided, have proved themselves pioneers in this great and good work.

✣ ✣ ✣

THE second movement to which attention has been directed, may be named the fight against "death and disease behind the counter." Mr. Sutherst, president of "The Shop-Hours League," in a communication to the *Daily News* of Monday last, gives a number of details re-

garding the work of shopmen and shopwomen well worthy the attention of employers of labour and of reformers at large. The long hours, fatiguing duties, and laborious labours of shop-assistants and others are set forth in the plainest terms; and if even a tithe of the statements be correct, it seems clear that the lives of our shop-workers contain very little time for anything beyond hard toil and scant rest. In one establishment at Chelsea, the girls slept ten in a room; girls have to stand "all the working hours;" the food is of poor quality, and the time allotted for meals is of the shortest duration. Is there any wonder, we ask, that such toil under conditions of extreme hardship, should drive many a girl out into the streets, in the false hope of escaping a bondage that is too great to be borne? Truly, if any one is tempted to doubt the reality of "the struggle for existence" in human life—the prototype of which Darwin and Spencer have demonstrated occurs in lower existence—he need only read Mr. Sutherst's statements by way of confirming the idea that human units must go to the wall and fail, as surely and as certainly as do the weaker ones among animals and plants. Civilisation has its own struggle and evolution—the former often of terribly fatal kind.

✣ ✣ ✣

We would remind the readers of Health that Dr. Andrew Wilson's four popular lectures on "Anatomy and Physiology" are to be delivered in Prince's Hall, Piccadilly, London, at eight o'clock, on the evenings of Thursday, Dec. 27th, and Monday, Dec. 31st, 1883, and of Wednesday, January 2nd, and Saturday, January 5th, 1884. Tickets and syllabuses may be had from Messrs. Chappell & Co., 50, New Bond-street, W., and 14, Poultry, E.C.; Austin's Ticket Office, 28, Piccadilly, W.; and the usual agents. The subjects are: "The Bony Framework," "How We Move—Joints and Muscles," "The Heart and its Work," and "Nerves, Brain, and their Work." All the lectures will be fully illustrated by views and diagrams exhibited by the lime-light.

✣ ✣ ✣

We wish to direct the attention of our readers to the "Juvenile Fine Art, Scientific, and Industrial Exhibition," now being held in the Portland Hall, Regent-street, London, on behalf of the Children's Hospitals of London. A feature of this exhibition is the presence of East-End children, occupied in their usual avocations. Here are some of the gains of these poor bairns:—Matchboxes are made for 2¼d. a gross; shirts, 6½d. a dozen; boys' suits, 2½d. each; trousers, 4d. a pair; waistcoats, including button-holes, 9d. each. Comment is needless.

✣ ✣ ✣

Dr. Mortimer Granville declares that the discarding of the night-cap—the head-gear, not the hot drink being meant—has tended to produce brain-disease. He maintains that the blood is driven in from the surface of the head to the brain by cold, and that, as a consequence, people dream more frequently in winter than in summer; while a tendency to brain-disease is, in the same fashion, encouraged. Both of these statements are, we think, open to question. The brain-circulation is of such well-regulated kind, that the temperature of our sleeping apartments in winter is hardly likely to have much, if any, effect on the central organ of the nervous system. So far from preventing dreams, we are certain that in the majority of cases the use of a night-cap will induce the visions of the night. Wearing a night-cap may be beneficial for the old or feeble; in our opinion, it is utterly unnecessary for the healthy of any age. So far as the health of the head (and hair) is concerned, the clothing of the head while we are indoors is, at any time, a mistake.

Original Essays

"Life is not to live, but to be well."—*Martial.*

SHIP-SURGEONS:

WHAT THEY ARE AND WHAT THEY SHOULD BE.

By Dr. Dometт Stone, F.R.C.S.

The Marine Department of the Board of Trade, over which Mr. Thomas Gray, we believe, presides, has been taken to task, and very properly so, for the *laissez-aller* it exhibits in everything connected with the mercantile marine of this great country, more especially for the apathy it evinces in the appointment of ship-surgeons. It is a notorious fact—as reprehensible as it is true—that thousands of emigrants leave these shores for distant parts under the impression (in some cases positive guarantee) that, as advertised, "an experienced surgeon accompanies the vessel," and, therefore, there need be no unnecessary alarm in the event of accident or illness during the voyage. Happy delusion! Of a truth, "Where ignorance is bliss 'tis folly to be wise," as the contrary is frequently the case! Is it surprising, then, that the mortality of passengers at sea should be considerably higher than elsewhere? The question, of course, resolves itself into one of supply and demand. A cursory glance at the correspondence recently published in the columns of our medical contemporaries proves conclusively that in numerous instances, men not only legally unqualified, *i.e.*, not registered according to Act of Parliament, but unqualified in other respects, in many cases not holding a single medical or surgical qualification, are appointed to take sole charge of large bodies of emigrants. Others are qualified, only in a sense, however—possess, perhaps, the diploma of the College of Surgeons and licence of the Apothecaries' Company, but are too young and too inexperienced for the onerous duties they have to perform. Again, there are others, the "ne'er-do-weels" and black sheep of the profession, and unsuccessful general practitioners. By Sec. 29 Medical Act 1858, the names of medical practitioners may be struck off the Medical Register for felony, misdemeanour, or infamous conduct in any professional respect; and, as a matter of fact, the names of about forty men have been so erased, and for want of the necessary check at the Mercantile Marine Offices some of these men have found employment in the service. As to the duty of seeing that no unqualified men are allowed to proceed in merchant ships, it may be mentioned that the superintendents of mercantile marine are required by Sec. 161 of Merchant Shipping Act 1854, and Sec. 10 Merchant Shipping Act 1862, to demand from the master of every foreign-going ship his certificate of qualification, as also those of his first and second officers and engineers (if any). The machinery is therefore at hand for ascertaining the qualification of every medical practitioner, but the Board of Trade contend that it is not the duty of the Superintendent of Mercantile Marine to inquire into the qualification of the medical practitioner engaged before him, and it is evident the Medical Registration Office is unable to carry the provisions of the Medical Act into effect for want of the necessary machinery; so it appears that one department of the Government cannot carry out the provisions of an Act, and the one that can will not assist in doing so.

Again, the owners of vessels employed in the North Sea whale fishery admit the dangerous nature of the traffic in which their ships are engaged, and therefore engage a *surgeon* (?), but it is notorious that for years past mere youths are shipped to attend upon the crew in the event of

accident to life or limb. Two vessels sailed last year from Dundee for the whale fishery, the ages of the "surgeons" being respectively 17 and 20!

We gather from a recently-published Parliamentary paper that during the six months ending 30th June, 1882, 108 vessels (104 of which were British) carried emigrants from Great Britain to the United States and Canada. These steamers were, on different voyages, under the *full* "medical charge" of no less than 141 different medical officers, duly approved by the Emigration Officer at the port of clearance, showing thirty-three changes within this period. Of these medical officers, 8 possessed no qualification which could entitle them to practise within the United Kingdom, and 35 others held but one diploma—29 as surgeon only, 3 as physician only, and 3 as apothecary only. Forty-six are reported as being but 25 years of age or under. Of these, 11 held but a single qualification. Of the entire 141 medical officers, only 80 would have been eligible for the most junior poor-law appointment, and but 27 possessing any qualification as physician and surgeon had reached their thirtieth year.

That so few able men should care to become ship-surgeons, arises from the fact that the pay is scandalously low, ranging from £3 to £10 a month—less than the wages paid to the steward—about the same as paid to the cook, steerage steward, and fifth engineer—the status not much better in the eyes of those on board; and the accommodation provided most inadequate—indeed, scarcely fit for a dog-kennel. One instance may be given on the authority of Dr. Irwin, as to the accommodation deemed necessary by the owners of one of the largest fleets in existence—carrying its thousands, and patronised even by Royalty—the surgeon's room measures 5 ft. 11 in. by 5 ft. 3 in., is without any window or port-hole, and is situated below in a narrow thwart-ship passage, the door being opposite to and within thirty inches of the door of the passengers' water-closets. Everything else on this vessel is magnificent to a degree. The saloon, to seat about 200, is gorgeous and in perfect taste; the steerage, for about 2,000, exceeds the requirements of the law; the captain is allotted two fine rooms, in one of which alone probably twenty persons could sit with comfort; yet for the surgeon, who has sole charge of the health of these persons, and on whose skill any one of them may depend for his life, this wretched hole, absolutely useless for any other purpose except a clothes-press or, perhaps, another water-closet, is deemed sufficiently good. Yet, not two years ago, this ship was visited and admired by half Liverpool, pictured and praised by half the papers in England.

It will thus be seen that shipowners can do much as they like, and that they invariably go to the cheapest market for their requirements. There are, of course, honourable exceptions. We may instance the Cunard, Inman, White Star, Allan lines, and the service over which the Colonial Government presides. With regard to the latter, it deserves to be recorded that all applicants for the post of surgeon-superintendent must possess a medical as well as a surgical qualification; they also have, or had, until somewhat recently, to undergo a special examination by the Medical Board of Her Majesty's Colonial Emigration Service, the same as with candidates for appointments in the army and navy; hence arises the very small mortality amongst Government emigrants conveyed to the Antipodes under the auspices of the Colonial authorities.

The bane is before us, and the antidote apparent to every one, save, it would seem, the Marine Department of the Board of Trade. We strongly urge ship-surgeons to at once enrol themselves into a Mercantile Marine Medical Service, and to lay their grievances before Parliament Now is the appointed hour. "They must take the current as it serves, or lose their ventures," remembering that "that work which is begun well, is half done," and that "occasions, like clouds, pass away."

No More Gas in Daytime.—More than 30,000 of Chappius' daylight reflectors are fitted up in London only, by which means gas is done away with, and the places rendered cheerful and healthy, added to which a considerable economy is effected. Prospectus sent on receipt of two stamps addressed to (H.) Chappius, 69, Fleet-street, London.—[Advt.]

COTTAGE HOSPITALS.

THEIR COST.

By G. A. Gibson, M.D., D.Sc., F.R.C.P.E.

SIXTH PAPER.

We must in this paper consider the question of Finance, and firstly the cost of procuring or creating the building itself.

It is impossible to give the faintest idea regarding the sum required for the purchase and modification of any existing structure, as all will depend on the nature of the building and the extent of the alterations required. But the case is entirely different as regards the cost of putting up a new hospital. New buildings cost very different sums, the variations depending chiefly on the nature of the materials employed in different localities. The site of the hospital in certain cases may be a matter of considerable expense; in others, again, a site may be presented as a gift to the hospital by a neighbouring proprietor. Disregarding the matter of a site, we may say that in the southern counties the sum necessary for the erection of an hospital is always considerably less than that required in the northern counties and in Scotland, for the style of building in brick and timber adopted in the former is much less costly than the northern system of erecting houses and other buildings of solid stone.

From the published accounts of "several cottage hospitals," says Dr. Swete, "it appears that a very good building, to give room for six beds, unless in an extremely expensive neighbourhood, should be erected for £500." This appears to be somewhat below the mark; nevertheless Longton Cottage Hospital, with ten beds, was erected in 1868 at an expense of £700, and St. Leonard's Hospital, at Sudbury, with twelve beds, cost in 1867 about £850. The more recently erected hospitals, however, have been more expensive, as the following list will show:—

Petersfield	with	10	beds cost	£1,100
Bourton-on-the-Water	,,	8	,, ,,	1,100
High Wycombe	,,	8	,, ,,	1,240
Maidenhead	,,	8	,, ,,	1,925
Ashford	,,	10	,, ,,	3,140

For the sum of £1,000, we may safely say that a very excellent hospital should be built.

The amount required to furnish a Cottage Hospital of six beds may be said, including surgical instruments and appliances, to be between £150 and £200. In the appendix to Dr. Swete's little work, there is a complete list of all the articles required, with their prices, to which we would refer the reader who desires fuller information on this subject.

It has been said that when once started and furnished, a Cottage Hospital of six beds will require a yearly sum of about £120 to keep it up. This sum seems too low, and from the returns of a large number of Cottage Hospitals, analysed by Mr. Burdett, we find that the annual cost is

about *twice* that stated above, although it is somewhat below that of the larger hospitals.

"The average annual expenditure in 174 Cottage Hospitals, having an average number of from nine to ten beds, and in 93 of which the average number of beds occupied was seven, was £464. 10s. This gives the cost per bed as £46. 9s. on the whole number, or £66. 7s. per bed occupied. When it is considered that the average cost per bed at a hospital like the London was £52 in 1879, being £69 per bed actually occupied, while at Charing-cross the cost was respectively £68 and £77, and at the Middlesex Hospital £71. 12s. in the one case, and £92. 9s. in the other, it will be seen that, on the score of economy alone, the Cottage Hospital has much in its favour."

As regards the methods of obtaining the means of supporting a Cottage Hospital, it is evident that the institution must largely depend on annual subscriptions. If it be practicable to set aside a certain sum as a capital fund, it would give a feeling of security against the possibility of any financial emergency, and it may be within the power of those in charge of the pecuniary arrangements to lay by the occasional donations and legacies in this way.

An essential feature of the Cottage Hospital system, as started by Mr. Napper, is the principle of self-help introduced by Mr. Smith, of Southam, more than fifty years ago. Every patient admitted to the Cranleigh Village Hospital must contribute a small weekly sum towards the funds of the hospital. The fact that they do thus aid the hospital as far as lies in their power, fosters the feeling of independence in the inmates, and preserves their self-respect.

Subscribers to the hospital must not be allowed any special right of sending patients into the hospital. The admission of patients by ticket is liable to great abuse, and must be denounced as a pestilent system; all sick people must be admitted by the medical man on duty according to the gravity of their conditions.

We think it should be a rule that all the medical practitioners of the district should be attached to the hospital either as consulting or as acting medical officers. It has been urged that one medical man alone should have the entire charge of the hospital, while all the practitioners of the district should be asked to co-operate with him by giving aid in any cases which may interest them. We are inclined to dissent from this opinion, and think that each acting member of the staff should take charge in rotation, while all the medical men, consulting as well as acting, should form a medical committee to superintend the medical affairs at the hospital.

HOW TO BECOME THIN OR FAT.

By a Surgeon to Several Metropolitan Hospitals.

NINTH PAPER.

The *hunger* or *starvation cure* consisted in greatly diminishing the amount of food ingested, and limiting it to one kind of nourishment. It is scarcely necessary to say that this plan is not only pernicious, but very soon intolerable, and, consequently, cannot answer any permanent purpose.

The diet table recommended by Dr. Chambers in 1850 consisted almost exclusively of albuminous articles for food. He strictly forbade fat, oil, butter, milk, and also sugar, and he limited the amount of starchy matters, such as bread and potatoes, and also the quantity of fluid to be taken; and this is practically the method subsequently recommended by Mr. Harvey to Mr. Banting, and which goes by the name of the latter. Beer, however, was also excluded. Fat is forbidden by the authors of all these cures, in the erroneous belief that fat necessarily makes fat. But is this statement correct? Professor Ebstein, a recent writer on obesity, from whose treatment I differ in many important respects, truly says that this experience rests on the experiment that animals which had endured long fasting, and which were then fed on a little meat with a good deal of fat, deposited a part of this in their tissues. But this does not prove that fat consumed in a quantity correspondng to the normal amount of our daily food contributes directly to the augmentation of the bodily fat. Without disputing that fat eaten does, in certain cases, become deposited as such in the tissues, he correctly says that in the healthy organism, and when the movements of the body are normal and the different alimentary substances are taken in proper proportion, this fatty accumulation does not occur. The popular belief that "fat forms fat" must be accepted with great reserve, and is only true in a limited sense; for, if it were absolutely true, fat would not have so long held its place as a food of great importance to the economy, seeing that the obesity which fatty matters would have caused would soon have deterred patients and physicians from continuing it. Moreover, one knows that the consumption of cod-liver oil, taken as a medicine, is enormous; yet how rarely does one see patients fatten on it? This clearly shows that it is something more than the mere taking of fatty substances which is necessary to the deposition of fat.

It is now placed beyond doubt that though Banting's system, and those based upon it, reduce the body-weight, it makes the patient so weak that one is obliged to cease it. He or she revolts at the diet, or becomes dyspeptic, so that the treatment has to be discontinued, and is very difficult to recommence. Moreover, it is neither rational nor practical, and as it cannot be continuously used, its effect are, of course, not permanent—that is to say, its effect in reducing the body-weight are not lasting, but the evil it may do is, unfortunately, frequently so.

I divide the treatment into three parts:—1. Diet and regimen; 2. Surgical; 3. Medical; though in practice they are often used simultaneously. I need say but little here about the medical treatment, which consists, after a thorough examination of the patient as to his or her fitness, or otherwise, to undertake the cure, in prescribing such remedies as experience has shown to be of service.

But before giving the essential parts of the treatment of corpulence, it will be well briefly to recapitulate. It has been shown that obesity is a deformity, and a disease which is of insidious growth, and shows a preference for certain persons. This is evidenced by the fact that of a certain number of persons eating and drinking the same articles of food, only a certain proportion become fat, and though the exact causes and chemical changes, whether normal or perverted, which lead to this storage of fat have yet to be thoroughly solved, still, we know enough to believe that any cause interfering with the proper digestion and metamorphosis of fat may lead to corpulence. Experience has taught me that it is errors of quantity rather than of quality which favour fatness, and that when the law of supply and demand is broken—*i.e.*, when more food is taken than is necessary for the reparation of bodily waste—it becomes converted, in the predisposed, to fat or albumen,

Pure Water is such a vital necessity that, without it, illness is certain. None are more prone to the ill effects when impure than the young. To ensure a pure supply send a post-card to the London and General Water Purifying Company, Limited, 157, Strand, London, W.C., who will return particulars post free.—[Advt.]

which, chemically, is very different from fat. The interference may arise through inactivity of the tissues brought on by lack of sufficient exercise, or may be due to eating too much of the carbo-hydrates. All these points have, I trust, been more or less clearly brought out, and it only remains to say a few words concerning the so-called Banting mode of treatment.

It is now placed beyond doubt that the Banting diet, which consisted of lean meats and little of the more carbonaceous substances, will reduce the body-weight, but will not abolish the fat-forming capacity, which will return directly the ordinary mode of life be resumed; moreover, this plan reduces the constitutional strength of the patient, and very soon he revolts at the diet, or becomes dyspeptic, or otherwise seriously impaired in health, and the treatment is obliged to be discontinued. In fact, this regimen starves the non-fatty tissues of carbon, which is to them an essential element, and if it be desired to avoid this serious complication, the principal excretory organs become loaded with excess of albumen, causing degeneration through over-work, so that one is here between Scylla and Charybdis, and in trying to evade one evil, we meet with a greater. It will now be seen that according to modern lights, Bantingism is neither rational nor practical, and as it cannot be continuously used, its effects are, of course, not permanent.

Treatment.—The system which I have adopted may, as already stated, be divided into three parts: (1) Diet and regimen—*i.e.*, mode of life; (2) surgical; and (3) medical, which, in practice, are frequently used simultaneously. I will repeat that there should be a thorough medical supervision both before and during the treatment, so as to detect, and at once check, any altered condition of important organs which may have become slightly perturbed through the change in the way of living. It must also be remembered that people who have been for some time fat, not only have weakened organs, but are liable to certain affections of the heart, kidneys, lungs, and liver, which may contra-indicate anything but very gradual treatment. As to the many nostrums which have been advertised as cures for corpulence, were it not that such a large proportion of the public, and even of the so-called educated public, purchased these things, I should not insult the common sense of my more intelligent readers by saying anything more about them. The salts of potash, the iodides, and preparations of *Fucus Vesiculosus*, of which iodine is the basis, enter largely into these quack remedies. Arsenic has also been used, and I need scarcely say that a poison of this nature, unless given under competent medical authority, will soon lead to grave results. A mixture of which marshmallow and some other herbs form part has been much advertised, and, no doubt, has succeeded in emptying the pockets of people who would be offended if they were called fools. I hope I have said enough concerning these nostrums.

The true causes of death are seldom recorded in the statistics of mortality. The Registrar-General gets only effects. What people really die of are bad air, bad food, bad drink, and bad habits.

The Ink-Plant.—The expressed juice of *Coriaria thymifolia* (a native of New Granada), which is at first red, but turns deep-black in a few hours, forms an admirable ink, since it does not attack the pens, resists many chemical agents, and is always (?) ready for use. Attempts are at present being made to cultivate it in Austria, and the editor of a technical thinks that, if the acclimatisation succeeds, the ink-manufacturers will have in it a dangerous competitor.

Personal Health

"Be timely wise;
With health all taste of pleasure flies."—*Gay.*

MACKINTOSHES.

By Philip Foster, M.D.

Now that these garments are coming into very general use, it is highly important that the public should clearly understand the manner in which they may prove injurious to health, and how any effect of this kind may be prevented. A Mackintosh is perspiration-proof as well as rain-proof, and, consequently, when one is worn the perspiration, being unable to escape, accumulates in the clothes, and they become damp. Upon its removal, the evaporation of this fluid—in other words, the drying process—commences, with its attendant loss of heat and well-known risk of "chill." The retention of this heat, which would otherwise be gradually lost, makes the Mackintosh invaluable during a long drive on a cold winter's day. The disadvantage, then, of this garment is, not that it inflicts any injury while it is on; but that our clothes being damp, we may catch cold upon its removal, unless our dress be changed at the same time; and when the dampness is very decided this precaution should certainly be taken. Judging from my own experience, I should say that the dampness thus produced is rarely sufficient to constitute any serious risk; for I have used mackintoshes, walking and riding, for twenty years, without ever having taken this precaution, or, as far as I am aware, having suffered in consequence of its neglect. I endeavour to avoid excessive perspiration, however, by walking slowly when I have my mackintosh on, and I do not wear it in hot weather, except for driving.

Popcorn Candy.—Popcorn, with all its associations of a good time, is once more in season, and children or young people who like to experiment with it can try the following recipe for crystallising it:—Put into an iron kettle one tablespoonful of butter, three tablespoonfuls of water, and one cup of white sugar; boil until ready to candy, then throw in three quarts of nicely popped corn; stir vigorously until the sugar is evenly distributed over the corn; take the kettle from the fire, and stir until it cools a little, and in this way you may have each kernel separate and all coated with the sugar. Of course, it must have your undivided attention from the first to prevent scorching. Almonds, English walnuts, or, in fact, any nuts are delicious prepared in this way.

Snelgrove's Governor Gas Burners.—Save quarter to half the gas bill. 15s. per dozen. Samples 18 stamps. Lists free.—60, Queen Victoria-street, E.C.; and of all Ironmongers.—[Advt.]

Dr. Nichols' Penny Vegetarian Cookery-Book.—Every household should possess this marvel of cheapness. Free for 1½d.—Nichols & Co., 23, Oxford-street, London, W.—[Advt.]

Murdock's Liquid Food. — Extract from the *Lancet*. — This American preparation is described as "an extract of beef, mutton, and fruits, containing corpuscles, and 12½ per cent. of soluble albumen." The solution gives the blood spectrum very strongly, and contains so much albumen as to become almost solid with dilute nitric acid. Of course it is an exceedingly powerful and easily digestible form of food. It is calculated to be of the utmost use in medical practice. Among other applications, the use of the liquid food as an enema will strike every one.—Van Abbott, Infant, Invalid, and Diabetic Food and Mineral Water Warehouse, 5, Princes-street, Cavendish-square, London, W.; American A B C cereals and foods generally. Depôt for Brand's (May Fair) Meat Preparations.—[Advt.]

The Family Circle

"The child is father of the man."—*Wordsworth.*
"In bringing up a child, think of its old age."—*Joubert.*

HEALTH IN THE SCHOOLROOM.

By Joseph J. Pope, M.R.C.S., L.S.A., L.M.,
Lecturer to the National Health Society, London.

That "a large and healthy population is the life and strength of a nation, and the source of its success," is a maxim that cannot be too often quoted. But few will deny its truth, yet very many can be found who disregard the precepts essential to its observance.

To arrive at this happy condition, the necessity of a general and thoroughly practical acquaintance with sanitary science must be admitted.

Are we, as a people, doing our best to attain this end? Dr. Richardson has recently drawn attention to the progress that has been made in sanitation since public notice was particularly directed to its value in 1854 when the horrors of the Crimean War so painfully marked the results of ignorance and neglect, and we are told to acknowledge with gratitude an equal advance evidenced by the labours of men in Italy, France, and Germany towards the same good end.

And I would gladly admit that in some of our colleges and medical schools, teachers are imparting special instruction to classes of students; while lectures and addresses by popular scientists are now and then delivered at a few of our institutions throughout the country, and thus some small opportunities are afforded for a more general knowledge of the laws of health and life. So far so good. I cannot, however, fail to observe that the everyday application of even the first principles of a healthy life is but sparsely recognised, and most inefficiently carried out. If our life and health depend, as they undoubtedly do, upon certain well-recognised principles in sanitary science, at what period must the greatest value be attached to their influence? Surely the period of growth and development. It is in early childhood that good constitutions are made or ruined. It is upon children that any unsanitary condition falls in its effects the heaviest. Their delicate frames are infinitely more sensitive, and the breath of poison or the chill of hardship easily blight their tender life. The more so, if a child be placed under educational restraint, or particularly so when it is deemed essential to insist upon a compulsory code of learning of equal severity and scope for every child alike.

Tissot says: "Great progress in study is, amongst children, very often the tomb of their talents and their health."

"It is not sufficient," says Dr. Elizabeth Blackwell, "that our course of education laid down for our children and youth should not injure, it is absolutely necessary that it should do them *positive physical good.*" I have so often noticed that such scanty care is bestowed upon the health of the body, and so much mistaken solicitude exhibited with regard to the brain culture, that I would venture to call attention to a few points absolutely necessary for obtaining that all-important condition, health in the schoolroom. First and foremost, for the healthy life of children we must have plenty of light, pure air, and warmth. They are as essential to their well-being as to the blooming of flowers; and so surely does a sad spirit and pale face result from their absence or diminution, as the bird ceases to sing when the cage is covered, or the plant grows white and diseased if kept in the dark.

Even in houses of pretension, the schoolroom is, in many instances, the very worst that can be picked out, often the dullest, poorest, and most useless of all the chambers. It is a popular, but very mistaken idea, "that any room is good enough for a schoolroom." But we forget how it is to be occupied by those who breathe quicker and live faster than older people, that many hours are to be spent in it, and that its occupants are of an age when they can least combat with unsanitary evils. Surely nothing can be worse than the underground schoolrooms we still find associated with many of our churches and chapels, and more so in the fashionable parts of our cities and towns. In many instances I have found them veritable cellars—dark, damp, and truly dismal; and for hours children have been confined in such dungeons, surrounded by most unhealthy conditions.

The schoolroom should face, if possible, south or south-east, be furnished with *large clear windows*, capable of being opened top and bottom, and of being easily and frequently cleaned. Away with fancy glass, case-mated windows, or ornamental framing. Avoid ground or ribbed glass, and be as sparing as possible of curtains or blinds. The direction of the light is also important. It must not fall full on the faces of the children. A glare is at all times most objectionable, and to children's sight it is positively hurtful. Yet I often find this arrangement in our Government schools. In all schoolrooms the light should fall from the left-hand side, as the children sit; and from as great a height as possible. This will prevent that common habit of leaning over the desk or book, and bending the head upon the chest—an evil practice caused by the desire to obtain the slight relief afforded by the shadow of the forehead.

Then the ventilation of our schoolrooms is so frequently incomplete. The windows, especially in the village school, and those connected with religious interests, rarely open in their entirety. A triangular pane may perchance turn on a swivel, or a small portion of the window fall or rise, dependent for its action on a cord or cords too often found broken. A ventilator may exist in the wall or ceiling, but it is too certainly inefficient from dust or rust. I have seen them rendered thoroughly useless by material being wilfully placed to obstruct their action.

Fresh air is hardly thought to be a scholastic requirement. Its practical worth does not yet form a part of the code of education. Our slates and copy-books do not teach sanitary truths; they are still supplementary points of learning, treated as interesting theories, and not as vital personal facts. How often do we find directly the scholars leave the school-room it is *closely closed*, and the door locked by the departing teacher, only to be reopened at the appointed hour of reassembling?

Recall, and I feel sure you can, that peculiar and indescribable sense of "stuffiness" that greets you on visiting a large schoolroom. Let me assure you that means serious organic impurity of the atmosphere, which has a most baneful influence upon children particularly. No condition is so calculated to arouse scrofulous disease.

Schoolrooms are best warmed by open fires and fireplaces. Stoves, however well appointed, over-dry the air, and invariably give off some injurious products. I am no advocate for either hot or cold rooms; a temperature of 60 to 65 degrees Fahrenheit is quite sufficient for health and comfort, and it should be maintained as regular as possible, for there is nothing so trying as constant changes of tem-

The "Spécialité" Lime Juice, for family daily use throughout the year, has not the usual musty flavour; will not turn mouldy; may be obtained of Chemists and Grocers.—Feltoe & Sons, Albemarle-street, London, W.—[Advt.]

perature. Dr. Richardson says: "A room that is first hot and then cold is as dangerous as a friend of the same temperament."

Recollect, children cannot bear cold. The younger the animal, the less power has it of resistance. No work, therefore, in a cold schoolroom before breakfast.

I have often thought it very unwise to turn children, even for a short time, out of a warm school-room into the playgrounds or gardens during the cold weather, and I am convinced that the risks are materially increased, unless some extra clothing be worn and free natural play encouraged.

Last, but not least, consider for a moment a matter of almost equal importance with those already mentioned. I refer to the *cleanliness* of the schoolroom itself. Strict, indeed, may the teacher be as to the scholars' appearance, careful enough to point out or check any dirty or untidy dressing, but what can be said of the sanitary arrangements with respect to the room and its surroundings?

Let me once more ask you to think of the parish or district schoolroom, with its dusty rafters and window-sills, the festoons of cobwebs round the cornices and in every corner, the uncleaned windows, and the dirty finger-stained walls, desks, and forms. I speak from bitter experience. In my capacity as Lecturer to the National Health Society; I have visited very many schoolrooms in and around London, and have from time to time—nay, even after a course of lectures—seen the very principles I have so earnestly endeavoured to explain directly disregarded, and whilst surrounded by conditions the very opposite to those advocated, have grieved to find no efforts made nor improvements promised by those who, acknowledging the force and value of my remarks, have also the power of practically carrying out the suggestions.

It is on this account I would seek to draw further attention to these most important factors for a Healthy Schoolroom.

Health should be regarded as the base, and instruction merely the ornament. The first consideration should be the production, not merely of clever, but also of healthy men and women.

Sozodont for the Teeth.—According to the *Rundschau*, this is composed of the following ingredients :—

Venetian soap	60	parts
Glycerin	60	,,
Alcohol	200	,,
Water	120	,,
Oil of peppermint	16	,,
,, anise	8	,,
,, cinnamon	4	,,
,, cloves	1	,,

"The Money Question Considered." E. W. Allen, 4, Ave Maria Lane, E.C. The money question in connection with the State purchase of Railways. "A small pamphlet full of facts." By post, 1½d.—[Advt.]

Sanitary Inspections.—Fee for Survey and Report, in London, 2 Guineas. Estimate given and Improvement Works carried out when required.—The Sanitary Engineering Co., 115, Victoria-street, Westminster, S.W.—[Advt.]

West Green, Tottenham, West Green College for Ladies.—The Principal, Miss Bristed, A.C.P., receives young ladies to board and educate in a thorough English education. Good schoolroom, furnished with all improvements in lighting and ventilation. Separate Swedish desks. Scientific gymnastic classes held twice a week. The pupils' studies are varied by frequent change of occupation and physical exercise. Miss Bristed's pupils have been very successful in the local University examinations. Good garden and tennis-court. Prospectus on application.—[Advt.]

Healthy Houses

"A happy home must be a healthy home."—*Anon.*

DRAIN AND CLOSET CONSTRUCTION, AND HEALTH.

By B. H. Thwaite, F.C.S., &c., Civil Engineer.

SECOND PAPER.—THE PUBLIC HEALTH ACTS.

It was not until after 1848—a year memorable in the history of British sanitary legislation—that better household drainage arrangements became generally adopted. In the early periods of our history the English Common Law provided but very imperfectly for the social exigencies of our population. There were in reality no sanitary provisions, although a legal clause did insist that every highway must be kept in repair, yet only, however, so far as the necessity for its preservation as a line of road was concerned, and there was no mention or insistance that the highway must be swept or scavenged. "If the road be miry," said an old Judge, "the traveller must pluck up his hose and put on his boots." Hence, although the highway, owing to its miry condition, might be well-nigh impassable, there was no legal remedy. By a process of legal evolution, the germ of which was the clause as to highways referred to, the Crown was eventually empowered to issue commission to consider the means, and insist on the fulfilment of schemes for the sewerage and drainage of large districts; but there was no legal provision for the drainage of separate and individual dwelling-houses. When nuisances were produced by some offensive neighbour, the householder had recourse to the Court of Leet, where the subject was investigated, and possibly a penalty enforced; but this process was not only tedious and expensive, and productive of much ill-feeling, but the results were rarely efficacious in removing the evil. Hence ill-regulated persons could with impunity render their houses obnoxious and dangerously unhealthy, not only to themselves, but to their neighbours.

As civilisation advanced, this condition of affairs became intolerable to many of our countrymen; and in the annals of Parliament a long series of applications, extending over a period of a century and a half, and from both public and private bodies, will be found for the regulation of persons in their out-of-door life, and for the repression of petty annoyances and nuisances from which householders may suffer by the carelessness, wilfulness, or ignorance of their neighbours. Generally, if the application for Parliamentary powers was at all reasonable, it was conceded; but often enough the application was opposed for the protection of some private or vested interests; and in those days, when class interests were so rigorously upheld, the opposition on this ground invariably proved successful, and a vested interest was often the means of preventing a sanitary amelioration. In this way legislation was satisfied up to the year 1845, when Sir Robert Peel's Ministry introduced a series of measures based on those of the preceding and irregular private Acts. This series of sanitary measures—eleven in all—were all passed between the year of their introduction and 1847, and formed a code subsequently known as the Model Acts. It may be mentioned here, however, that in 1845 the Duke of Newcastle introduced a Bill for the improvement of sewers and drains of towns, which, however, did not become law. About this time a commission, which was appointed to investigate into the sanitary condition of the metropolis and other great towns in England,

published their report, and this had the effect of drawing the general attention of the public to the necessity of increased sanitary legislation. This attention was intensely increased and stimulated by the fatal epidemic of cholera which about this time swept over the country with terribly fatal effect. In deference to the clamour for increased sanitary legislation, Lord Morpeth, in 1848, introduced the celebrated Act now known as the Public Health Act, a measure which, with all its imperfections, equals, if not surpasses in the beneficial importance of its bearing on the welfare of every class of the British public, all other Acts *pro bono publico* which are inscribed in the annals of British legislation. Like most legislative efforts, the Public Health Act, comprehensive as it was, was found to be inadequate in some of its clauses, and numerous alterations and additions have been made to it. The first amendment to the Public Health Act was that of the Local Government Act of 1858. This Act was also considerably amended by the Act of 1860 for the Prevention of Diseases. The Sewage Utilization Act followed in 1865, and in 1866 the Sanitary Act was passed. The Public Health Act of 1875 gave greater efficiency to the various former Sanitary Acts.

Brief Summary of Important Clauses of the Public Health Acts Referring to House Drains and Closets.

Drains.—No new house is to be built or occupied, or old house (pulled down to the ground-floor) rebuilt or occupied, without proper drainage. The drain is to be connected with the sewer of the local authority, unless there is no sewer within a hundred feet "of some part of the site of the house;" in that case the connection is to be with a covered cesspool, or other place not being under any house. In any case the works must be constructed in accordance with the requirements of the authority. Penalty for default, not exceeding £50 and costs. If any house within the district of a local authority is without effectual drainage, the owner or occupier shall be required to make a connection with a public sewer, if there is one within a hundred feet of the site of such house, or with a covered cesspool or other place, if there be no sewer available. The authority may prescribe materials, &c., to be used. If the owner does not comply with the order, the local authority may execute the works and recover the outlay from the owner in a summary manner. If a house has a drain which, though sufficient generally, is, in the opinion of the local authority, objectionable for any reason, the local authority may close such drain, on the condition that it provides, at its own expense, an effectual substitute. If a house is drained into a sewer, and the drainage is not defective, a local authority, if it chooses to divert the sewer, cannot charge on the owner of the house the expense of making the new connection.

Closets.—Every local authority is to see that the house drains, water-closets, earth-closets, privies, cesspools, and ashpits within its district are constructed and kept so as not to be a nuisance or injurious to health. In order properly to attain this end, the surveyor or inspector of nuisances is armed with certain powers of entry. If he find any drain, &c., in that condition as to require alteration, the local authority must serve notice on the owner or occupier to execute within a reasonable time the necessary works. Penalty for default, 10s. per day or less. If the default continues, the local authority may execute the necessary works and recover the expenses in a summary manner, or declare them to be "private improvement expenses." Any person may invoke, by writing, the intervention of the local authority as to this matter. By this clause any owner or occupier can direct the attention of the local authority to the defective condition of his neighbour's or any other person's drains. No new house is to be built, or old house (pulled down to the ground-floor) rebuilt without a sufficient water-closet, earth-closet, or privy, and an ashpit furnished with proper doors and coverings. Penalty, £20 or less.

A local authority must require the owner or occupier of a house unprovided, as aforesaid, forthwith to provide such of these appliances as it may deem requisite; on default, it may do the work required and recover the expenses in a summary manner, or declare them to be "Private Improvement Expenses." A water-closet, &c., may, by leave of the local authority, be used in common by two or more houses. The word "house" includes schools, factories, and other buildings in which more than twenty persons are employed at one time.

Earth-closets having come into use, they are the subject of special provision. Any enactment requiring the construction of a water closet, may, with the approval of the local authority, be satisfied by an earth-closet.

The drainage and closets of buildings may be the subject of by-laws.

The authorities of most of our large towns have taken advantage of the power thus conferred by the last paragraph and have based their local by-laws on the model code issued by the Local Government Board in conjunction with the Sanitary Act of 1875. As a copy of these by-laws can be obtained at any law-stationers, it is unnecessary to reproduce them here. The clauses referring to drains and closets, however, may be briefly summarised as follows:—

All damp subsoils, and the lowest stories of all buildings, are to be drained into a sewer.

The pipes are to be of glazed stoneware, and when laid to carry away the wastes from closets, they are to be bedded in concrete.

Main drains are to have a trap as near the entrance of the main drain as practicable.

No drains inside a house are to have any inlet other than from a water-closet or slop-sink, and all overflow pipes must discharge externally over an open trap grating.

All closets are to be provided with a separate cistern, or with means of supplying the closets with water other than directly from the cistern used for the supply of drinking water.

All soil-pipes and cesspools are to be properly ventilated.

The use of the form of closet known as the pan-closet with the D-trap is distinctly prohibited.

All closets shall be placed against external walls, and provided with a window not less than 2ft. by 1ft.

The clauses of the by-laws enumerated, if properly interpreted by the official representative of the sanitary authority, leave but little to be desired; but, nevertheless, it is a notorious fact that instances of badly-drained houses are the rule rather than the exception.

To Drive away Rats and Mice.—Sekerka recommends to pour common tar into the rat or mice holes, which either kills them at once, or will, at least, make the locality uninhabitable and impassable for them, since it takes a long time to dry.

The "Boncontour" Stay-Belt and other Orthopædic Apparatus, made by K. R. Schramm, Orthopædic Mechanician, 64, Belmont-street, Chalk Farm-road, London, W.—[Advt.]

Prize Medal National Health Society.—Houghton & Co., Practical Plumbers, Inspect and Report on House Drainage. Improvements carried out with all the best and latest inventions. Estimates Free. 21, Sloane-terrace, S.W. Established 1863.—[Advt.]

Barnes's Impermeable Opium Poultice, an effective and perfectly safe application for relief in neuralgia, gout, rheumatism, painful swellings, and lumbago. Prices by post 1s. 3d. and 2s. 5d. 1 and 2, Trevor-terrace, Knightsbridge, S.W.—[Advt.]

Recreation and Health

"Health is the vital principle of bliss,
And Exercise of health."—*Thomson.*

PHYSICAL EDUCATION IN AMERICA.

By D. A. Sargent.

(From the *North American Review.*)

SECOND PAPER.

The game of foot-ball opens a somewhat wider field. More men are required, the rules are easily mastered, and the qualifications demanded are more generally possessed. One should be sound and healthy in heart and lungs, and able to stand thumping and bumping for an hour or two with impunity. If to this hardiness be added a fleet foot, strong limbs, quick perception, and presence of mind, one has the requisites of a foot-ball player. But, as even this game is now played, skill is of the highest importance, so that here again we see the same tendency to raise the standard of the sport, and to narrow participation to the capacity of the few. Moreover, there are serious objections to this game. We have not the space to discuss them. It is a rough-and-tumble contest from the beginning to the end; bruises, strains, or internal injuries are its natural accompaniments. Of all college games this is the most accessible, and yet for the average and untrained student it is unquestionably the most dangerous.

The athletic contests, or "field days," of spring and fall open a still wider field for physical achievements. The exercises comprise running, jumping, walking, putting the shot, throwing the hammer, and similar sports. These afford an excellent chance for the specialist to display his abilities, and only specialists enter them. In their case the entire energy of the system has been concentrated on the development of special powers, and everything else set aside as useless. This is the great objection to athletic exercises as they are at present conducted.

The gymnasts, as a separate class have, of late years, been rapidly diminishing in numbers. Outdoor sports have grown in popularity, and the gymnasium is now used, regularly and systematically, chiefly by the boating men and the ball-players, as a means of keeping up their strength during the long winter months, and of adding something to the skill required in their chosen sport.

We have thus seen that the whole system of college athletics is based upon a spirit of competition. Symmetry of development is never thought of, nor is it ever acquired by exclusive reliance upon any of our popular sports. Indeed, we would venture to select from any group of recognised athletes the oarsmen, the ball-players, and the gymnasts, simply from their peculiar muscular development. In many cases these peculiarities are so marked that one can readily distinguish a starboard from a port oar, the pitcher, catcher, and short-stop from the rest of the nine, and tell the piece of apparatus upon which a gymnast has won his distinction. To devote themselves wholly to some favourite sport, to make a "record" that shall be talked about by future classes; to become famous as oarsmen, or pedestrians, or ball-players; these are the ambitions of the men who are giving their time to such exercises. The tendency of college students to-day is to look upon college athletics simply as a field for rivalry.

We have thus far been speaking of the men whom we termed collectively the college athletes, but this class comprises only a small proportion of those who attend our literary institutions. There is a second class, whom we have called sporting men. In what does their physical culture consist? Mainly in attending the races and games. If the river and the ball-ground are at a distance, a tramp to either calls for a little exertion, but in the exercises themselves the sporting men never participate. "Tailorising" is for them a more convenient method of making up for physical deficiencies. They do the betting, and contribute largely to the financial support of the several athletic organisations; but they are never seen in the waist of a boat or on the floor of a gymnasium. From this class of men, however, often comes the best athletic material. Their spirit and buoyancy are indicative of a good natural heritage, and with these innate qualities for a basis, a thorough system of training produces the most favourable results. It is just this kind of temperament that should find a legitimate channel for activity in systematic exercise. Let this exercise be mental or physical, laborious effort of some sort should be exacted daily. Perhaps the fatigue following physical effort is for this class the most beneficial, as it is rarely accompanied by nervous irritability, and it sets at rest those vague, undefined longings which often supervene after severe mental application.

Still another class is composed of those men who attend strictly to the college requirements, and who may appropriately be termed the scholars. In this group are to be found the hardest intellectual workers, men who study almost incessantly during their waking hours, and among whom are some of the most highly organised and finely balanced students in college. It is needless to say that these men take no time for exercise or recreation. They never go to a boat-race or a ball-match, and the feats of the gymnasium are distasteful to them. A hurried walk into the country some Saturday afternoon, or a ride to the sea-shore, gives a little exhilaration; but physical effort of all kinds is irksome to a close student, and, unless he is accompanied by an agreeable companion, his mind is invariably brooding over some lesson or problem as he saunters along. Walking in this manner is merely taking an airing, and is no more beneficial than sitting by an open window. In the ranks of the scholars we find, however, a relatively small number who direct their college course intelligently to the acquirement of symmetrical culture. Systematic habits of study are supplemented by systematic habits of exercise, and they would no more neglect one than the other. Such men are often called machine-workers, but they are the ones who profit most by their exercise, because they take it regularly and make it subservient to their highest aims.

Of the idlers little need be said. They differ essentially from the classes we have considered, but chiefly in a negative way. They have no favourite pursuit, either intellectual or physical. They are surrounded by the stimulating influences of college life, but their inertia is seldom overcome, the golden days of youth are wasted, and the opportunities of mental and bodily training are carelessly thrown aside.

Half the nervous disorders of women are due to the monotony of their lives; the other half, perhaps, to excess of excitement. The healthy are between the two extremes.

"Lochinvar" Old Scotch Whisky.—For invalids who are ordered whisky, or for those who use this valuable spirit to promote and aid digestion, it is important that the whisky *be well matured by age.* The "Lochinvar" is a blend of the finest Highland whiskies, and is *guaranteed five years old.* Sold by all wine merchants. Wholesale only of Hills & Underwood, Eastcheap, London.—[Advt.]

Jottings from the Journals

"Th' ingredients of health and long life are
Great temperance, open air,
Easy labour, little care."—*Sir Philip Sidney.*

Cremation in Dorset.—Dr. Leach writes as follows to the *British Medical Journal*:—"As one of those whose great privilege it has been to assist in carrying out the last wishes of my dear friend, Captain Hanham, perhaps I may be permitted to supplement the report of the cremation of his body, which has already appeared in the London daily press, by a few more particulars of that most pure and sacred rite. In so doing, I feel that I am acting in strict accord with his oft-expressed desire that this method for the disposal of the dead should be as often as possible placed before the public in its true light, in order that it may help to dissipate that sentimental dread which exists, and naturally so, in so many minds. After the ceremony you have been told that the body was left in the beautiful mausoleum Captain Hanham had built in the grounds of Mauston House; thence it was borne by friendly hands to the crematorium the same evening, and was placed in the chamber of the furnace fashioned for its reception. As it was the custom of the Greeks for the dead person's nearest relatives and friends to light the funeral pile, so here that duty devolved upon his adopted son, Mr. J. C. S Hanham, his friend, Dr. Edney, and myself. Soon the all-consuming and purifying fire was at its work, and at the end of two hours we saw, by removing one of the small side blocks, that it had indeed done that work well. We, as medical men, could recognise the various portions of the bony structure in the sea of fire, and the position of the body at the bottom of the furnace was by these means easily indicated. That there was nothing revolting to the feelings in the sight was truly shown by the fact that others present, not accustomed to such sights, looked on eagerly, and expressed an unanimous opinion in the beauty and purity of the rite. After another hour it was found that the snowy bones crumbled at the slightest touch, and cremation was decided to be complete. The furnace, which has been so well described by the writer of the report above referred to, was the work of Mr. Richards, of the Wincanton Iron Works, who, in its construction, displayed his complete knowledge of the principles governing that perfect combustion so necessary for the purpose of cremation. The evening was beautifully clear, and, notwithstanding the lowness of the chimney, so perfect was the combustion that not the slightest trace of odour was perceptible; and, having now thrice witnessed cremation, I can most truly assert that in no possible way can it be injurious to health, or in the least degree offensive to the senses. Can those who know the unspeakable horrors of our great city cemeteries say as much for earth-burial? The two processes, when considered with regard to the safety of the living, do not bear comparison; and, seeing that they so closely resemble each other in both being processes of oxidation, differing chiefly in the fact that in the one case, by the agency of fire, the process is complete in an hour or two, whilst in the other, by a slow horrible decomposition, it is not complete for years. Seeing that the end is the same, the residuary dust and ashes consisting in each case of the earthy matter of the body alone, it can only be a question of time to overcome that sentimental dread and the curse of prejudice ere this will be the accepted method for the disposal of our dead. To-day, the apparatus having cooled, we collected the ashes, parts looking like frosted silver, parts like snowy dust. Reverentially and carefully was this done, as at Hector's funeral-pile, where

> His brother then, and friends, searched everywhere,
> And gathered up his snowy bones with care.

These will be deposited eventually in an urn, and be placed in the mausoleum side by side with the urns containing the ashes of his late wife, Mrs. Hanham, and his late mother, Lady Hanham. As Captain Hanham was the pioneer of cremation in a practical form in this country, so also has it been due to his courage and forethought that those to whom he confidently entrusted his own cremation have been enabled so faithfully and so successfully to encompass it. That it may bring forth such fruit in the coming future as to be an enduring memorial of his revered name, must be the earnest wish of all who desire the health of their fellow man. I cannot do better than conclude in the present Bishop of Manchester's words, when he said: "In the same sense in which the Sabbath is made for man, and not man for the Sabbath, I hold that the earth was made, not for the dead, but for the living. No intelligent faith can suppose that any Christian doctrine is affected by the manner in which, or the time in which, this mortal body of ours crumbles into dust and sees corruption."

\+ \+ \+

Physical Education of Girls.—We are pleased to find that increased attention is being paid to the question of the physical training of young and growing girls. The Swedish physical exercises have found general favour, whilst many games and athletic pursuits are now permitted which formerly were prescribed by prudish schoolmistresses and timid mammas. There can be no doubt that the present movement is in the right direction so long as it is kept within reasonable limits; for the extension of competitive athletic sports to our girl schools would be a great mistake. But, short of this, the daily employment of systematic exercise will prove of the greatest service in after-life in developing the frame and obviating those ills which so frequently supervene in the passage from girlhood into womanhood. The disorders which occur at that period are generally to be referred to imperfect development and to defective nutrition. When the girl is naturally healthy, little is wanted but to encourage, or we might say insist on, ordinary systematic exercise being taken daily. This should consist of certain gymnastic exercises, which ought to be practised each day as part of the school work, supplemented by such games as lawn tennis, rounders, golf, &c. Swimming is an exercise that every girl should indulge in, and it ought to be taught systematically at all our girl schools. Rowing, too, is an exercise which greatly strengthens the muscles of the trunk and abdomen, and is therefore serviceable, when employed with judgment, in giving grace and elegance to the figure. Schools at the seaside or near a river should avail themselves of the opportunity and have rowing taught by some trustworthy boatman. Riding has always been an exercise in favour with the profession; the expense attending it, however, debars its pursuit in many cases. With delicate girls, or those rapidly growing, some of the above-named exercises may prove unsuitable; in these cases it is best to rely at first entirely on gymnastics till the frame is strengthened. Until recently dress proved a great barrier in preventing the free exercise of the limbs and body; but the introduction of a more sensible costume for the playground will in future, it is to be hoped, remove the disadvantage. The costume in use consists of a short skirt of blue serge, draped with a crimson scarf, blue jersey, short trousers, and long stockings. Such a dress is

quite suitable for girls under fifteen, and we fancy those who are educated on this system will not, as they grow older, readily submit to the bondage of high-heeled boots and tight-lacing, though probably they would have to adopt a more lengthened skirt.—*Lancet.*

\+ \+ \+

Day and Night Nurseries.—The day and night nurseries are better situated on separate floors, or at some distance apart; where this cannot be done they should be arranged not to communicate directly with each other, so that one set of rooms may have the windows left open to the air for a good blow through, without fear at the same time of the other room being chilled. There are points in the general management of the two kinds of apartments that may be considered together so as to contrast their special requirements. The day-room is for cheerful activity, the bedroom for quiet repose; hence a great difference is in the way of lighting the rooms. All rooms, whatever their purpose, should be well lighted, so that everything in them can be distinctly seen, and no part left in obscurity and in danger of neglect; and the door should not be directly opposite the fireplace in day-rooms, without a special contrivance for ventilation, to be described further on, as the draught is mostly from under the door to the fireplace, and so along the floor; this can do no harm in the bedroom, but it is bad in a sitting-room, and specially bad for children, who do, or should, spend much of their daytime in creeping or playing on the carpet.

Our Bookshelf

"Reading maketh a full man."—*Bacon.*

Household Cookery and Laundry Work. By Mrs. Black, of the West-end School of Cookery, Glasgow. (Glasgow: W. Collins, Sons, & Co.) 1883.

"Good thoughts come from the heart; bad thoughts from the stomach!" Whoever it was that first made this half-serious, half-jesting assertion was not so far wrong as some may imagine, in that he seems to acknowledge the power which our health exercises on our happiness—social, moral, and even spiritual. As our bodies, to be kept in health, must, among other things, be nourished by wholesome and well-cooked food, we may regard Mrs. Black's book on household cookery as a means towards obtaining happiness. Besides this, there is no denying the fact that a practical knowledge of domestic management generally is the best oil to make the household wheels run smoothly, and thus avoid many of the small jars which vex and annoy young wives and housekeepers; and often vex through them, their male relatives, who understand them less, and therefore feel them more. As Mrs. Black writes in her introduction:—

> This little book proposes to be a practical guide to some departments of domestic management in a plain household, namely, in cookery, laundry-work, and household management. Ignorance of these subjects has caused many a young housekeeper headaches and heartaches; and only after many trials and much waste has she succeeded in learning duties which a little early training would have made quite easy.

Among the recipes given may be found many so simple, useful, and economical as to bring them within the reach of the most unpretentious housekeeper, while young housewives anxious to concoct some "dainty dish to set before the king"—in other words, to tempt and please their husbands and brothers, cannot fail to be satisfied with some of those provided by Mrs. Black. Of the first-class we may mention that for Lentil Soup:—

> Take 1 lb. of lentils and wash them thoroughly in many waters until they are perfectly clean; soak them for a night in cold water, then put them into a pot with the water in which they were soaked, and as much more as makes 2½ quarts, or 10 breakfast-cupfuls. When this boils, add carrot, turnip, parsnip, 2 large onions—all cut up roughly—and a small pinch of carbonate of soda about the size of a pea. Allow it to boil two hours, then strain through a colander, washing the lentils all through, except the skins; return it to the pot to warm. Season with pepper and salt, and serve. Lentil soup is delightful if nicely made, and requires no meat of any kind, or bones, as it has the taste and the good properties of butcher-meat to a large extent in itself.

The following for macaroni and cheese is very simple, and makes a tasty dish for dinner or supper.

> Break up a quarter of a pound of macaroni into short lengths, and put it in a saucepan with enough boiling water, slightly salted, to cover it well, and let it boil slowly for twenty minutes; then drain it and put it on again with the milk to boil till it is tender, but not broken. It will require twenty minutes or half-an-hour. Have the cheese grated (it should be old and rather strong), and mix half of it with the macaroni, a little salt, cayenne pepper, and the mustard; then turn it out on a flat dish, and sprinkle over it the bread-crumbs and the remainder of the cheese, and place on the top the butter broken in little bits. Place it before the fire to brown on the top, and serve hot.

Some of Mrs. Black's miscellaneous hints are not only good, but are absolutely things which everyone who has any regard for his or her health ought to know. For instance, writing of fish she says:—

> All fish *out of season* are unwholesome, and sometimes positively injurious. Buckland, who has given so much information on the nature and habits of fish, writes very emphatically against the taking and using of fish out of season. It is said that fish are fully as nutritious as animal food; and though they may not have such a satisfying effect upon the stomach, that arises from their being so easily digested. They are not only good food, but food of the best description, well able to supply the wants of the body, suitable for young and old, healthy people and invalids.

Of vegetables, Mrs. Black writes:—

> All green vegetables are anti-scorbutic or blood-purifiers; they help to dissolve other food in the stomach, and assist digestion, and, as they contain a great deal of water, are particularly suitable to be used in hot weather. The blood contains a great many mineral substances as well as salts, and vegetables and water supply some of these necessaries.
>
> Wheat contains more of the mineral matter of which bones are formed than any other food; and all growing children should have a dietary consisting of bread, or food largely composed of flour. . . . N.B. A piece of bread tied in a linen rag and put in the water, prevents the unpleasant smell the boiling of green vegetables causes in a house.

Of milk and eggs, again, Mrs. Black endeavours to show us the value by telling us that the former contains all the substances necessary to sustain life, while the latter are very nutritious and contain a great deal of nitrogenous food in a remarkably concentrated form. We are reminded, also, under this head that puddings are much lighter steamed than boiled.

Perhaps more important, and certainly less studied by the majority of people than the foregoing, are the hints on sick nursing, which is, as Mrs. Black says, "even more essentially women's work than housekeeping, and requires knowledge, combined with tenderness and care, a feeling heart, and skilful hands." Some women, it is true, are born nurses, and seem to know by instinct the requirements and arrangements of the sick-room; but to the many who suddenly and unavoidably find themselves in the position of sick nurse, without having acquired the practical knowledge and skill requisite, Mrs. Black's little book will prove an invaluable help. Among some of the most delicate dishes meant to tempt an invalid's appetite, we may mention the following:—

> *Beef-tea Pudding.*—Soak the bread-crumbs in the beef-tea, and

allow it to stand a few minutes. Beat up the eggs (two), and add them with a very little salt; then pour all into a small dish, and bake for a quarter of an hour, or steam gently about half an hour till it gets firm. This is a very nourishing dish for the sick.

Apple-fool.—Bake four nice apples till quite soft, and scrape the pulp out; add to it the sugar, and a small slice of sponge-cake crumbled up, and one egg well beaten. Whisk all together with a fork, stir over the fire till it gets hot, then dish it nicely, and use either hot or cold.

Milk Jelly.—Scald a calf's-foot, and scrape it very clean, and put it on to boil with the water. Let it boil gently for two hours, then add the milk, cinnamon, and lemon rind, and gently simmer for two hours longer. Sweeten with the sugar, and then strain, and pour it into a shape to get cold. This is most nourishing for children and invalids.

We should mention that at the head of each of these recipes, all the ingredients needed are detailed—a plan which prevents mistakes, and is a great help to inexperienced cooks.

After some useful hints on the preparation and use of tea, coffee, and cocoa, and a number of excellent recipes for preserves, Mrs. Black passes to the laundry-work; but we have only space to say that her hints on washing and ironing are as useful, practical, and as easy of comprehension as the rest of her book.

She closes with some useful and sensible remarks on Domestic Economy generally.

SEA-SICKNESS.

Sea-Sickness; its Cause, Nature, and Prevention, Without Medicine or Change in Diet. By William H. Hudson. (Boston: S. E. Casino & Co. London: Trübner & Co.) 1883.

This volume is a good example of the labours of an author who has really very little to say, but who takes care that the saying shall make up in bulk what it lacks in importance. Mr. Hudson's theory of sea-sickness might have been stated in half-a-dozen lines, and his whole book might profitably have been condensed to form a small pamphlet. Instead of judicious compression, we find wearisome detail and repetition. Even a chapter of "notes" on "things in general," and treating of subjects (such as life, mind, nerves, muscles, and sleep) which possess only a remote connection with sea-sickness—if they indeed possess any direct relationship at all—is smuggled in towards the close of the volume. The essence of this laboured treatise is to be found in page 35, where the author says: "It will thus be seen that the perfect and only remedy for sea-sickness is relaxation of the muscular system, fully comprehended (*sic*) and diligently practised, until it becomes a habit." All that Mr. Hudson has to tell us is, that having watched sailors accommodating their movements to those of the vessel, he became convinced that the secret of sea-sickness lay in the want of such accommodation in non-seafaring persons.

Sea-sickness, however, is not such a simple matter as our author regards it, nor is its cure so easy as he would have us believe. We know of many cases in which, if his ideas were correct, perfect cures should have followed the attempt to relax the muscles and to "go" with the ship. But the nausea and sickness vanish not, and the apparently hydra-headed affection—as to its cause, at least—remains triumphant and defies all attempts at cure. This volume is an excellent example of the ease with which a small topic or idea may be expanded into forming a book. It also affords an excellent illustration of the aptitude with which a person possessed of "one idea" may entirely ignore all aspects of a case or topic save the special view which he conceives can alone explain difficulties or resolve doubts.

Sanitary Appliances, Etc.

BLACKWOOD'S SHILLING SCRIBBLING DIARY FOR 1884.

If "order is heaven's first law," a good diary must be an universal help to the observance of the law. Messrs. James Blackwood's Shilling Diary is a marvel at the price. It is a foolscap size, interleaved with blotting paper, clearly printed on good paper, and containing a vast amount of useful information. For the lawyer, doctor, or merchant, such a diary is a boon of no mean order.

THE "BONNE-BOUCHE" FRENCH COFFEE.

This coffee, supplied by Messrs. Cave, Johnson, & Co., 8, Lime-street, City, London, forms an agreeable beverage, and is of pure and wholesome character. It consists of an admixture of Bruges chicory and pure coffee only, and may, therefore, be relied upon as a safe and nutritious article of dietary. The coffee has a highly agreeable taste and pleasant aroma, and will well repay a trial.

EDWARDS' REAL "ARABIAN REVALENTA."

Messrs. Edwards, Allen, & Kitching, of 50, Holland-street, Blackfriars-road, London, have forwarded us a sample of their "Arabian Revalenta," which appears to be a farinaceous product of high nutritive value, and well adapted as a nutritious and non-stimulating dietary both for invalids and for those who are hale and strong. Our examination of this Revalenta shows that it contains a high percentage of flesh-forming principles, and also of heat-producing elements. Taken with milk, and prepared according to the recipes given by the manufacturers, there is no doubt this food constitutes in itself an economic and sustaining dietary. In the cure of constipation, and in the treatment of dyspepsia, we think the Revalenta of Messrs. Edwards & Co. will be found highly beneficial.

Our Letter : Box

"Conference [maketh] a ready man."—*Bacon.*

NOTICES TO CORRESPONDENTS.

All Communications for the Editorial Department (including specimens of Sanitary Appliances, &c.), to be addressed to "The Editor of Health," 74-76, *Great Queen-street, London, W.C. Those intended for the Publishing Office to be sent to* "The Publisher," *at the same address.*

Contributors are requested to send stamps for the return of the MSS. *in event of non-acceptance. Every care will be taken to ensure the safety of* MSS., *but the* Editor *and* Publishers *cannot hold themselves responsible for accidental loss.*

Correspondents are requested to write on one side of the paper only. The Editor *disclaims responsibility for the opinions expressed by Correspondents.*

LETTERS TO THE EDITOR.

ELECTRO-DENTISTRY.

Sir,—It is evident that Mr. Boyd Wallis does not understand anything about the construction of my Electric Dentures. None of the elements he mentions do I employ, neither should I for one moment think of doing so. His idea is to attain a high E.M.F., which is altogether wrong; it is a low continuous E.M.F. that is necessary. Probably the best way of ending this correspondence is to refer Mr. Boyd Wallis for information and instruction to a little work by me (now in the press) entitled "Electricity; its Application to Dentistry," published by Mr. William Colmer, 7, President-street, E.C.—Yours faithfully, J. J. Wedgwood, M.D.

15, George-street, Hanover-square, *Dec.* 11, 1883.

[This correspondence must now cease.—Ed. H.]

SLEEPLESSNESS AND ITS CAUSES.

Sir,—I have seen mention made of the use of tea and coffee as causing sleeplessness; but, judging from myself, there are other articles of food in daily use which do not agree with some people, and especially if taken regularly. I allude to milk, especially sweet milk, and butter. Many people would feel far better if they refused to drink sweet milk, or to take it to puddings or other dessert at dinner. They would also enjoy better health did they cease taking butter for a time. I would suggest that some of

your correspondents who seem to me to complain of evils which look like the results of indigestion, might experiment upon themselves by omitting to use milk or butter for a fortnight or so, and then tell us the effect.

I think it was in HEALTH I read that skim-milk was more suitable for many people than sweet milk, and I find such to suit me best to porridge, and to take only half a teacupful or so. Some of your other correspondents might experiment as to the use and non-use of jellies and jams.—I am, &c.,

PREVENTION BETTER THAN CURE.

QUERIES AND ANSWERS.

[WE beg to announce to our correspondents that, save in exceptional cases, or where addresses of medical men, &c., are desired, we cannot reply to inquiries by letter.]

[Correspondents will please note that Queries addressed on Postcards are consigned to our waste-paper basket. If information is worth having, it is at least worth a letter.]

GENERAL.

CONSTANCE.—Try the cocoa of Van Houten, or of Tulloch. The latter is a highly pure and nutritious Dutch cocoa.

A. B. C.—See remarks on the Zander Institute, in HEALTH, No. 36, p. 172.

A. THOMSON.—There is no difference between the preparations. One is as good as the other.

G. O.—Write direct to the secretary.

ATLAS.—1. A few have been taken up here, but in America their use is broadcast. 2. Not unattended with danger.

OSCAR.—1. The late Dr. Parkes. 2. An American inventor. 3. Too late for insertion in present No.

J. THWAITE.—1. "Valvular disease" means affection of the valves which regulate the flow of blood through the heart. 2. There are valves in veins and lymphatics, opening towards heart and thoracic duct respectively.

ANTONY.—See reply to "G. O." above.

SANITARY.

THE REV. MR. COLEMAN.—We have made inquiries, but cannot find that the tablets are on sale in London, or elsewhere in England. We should strongly advise you to write to Messrs. Faber, pencil manufacturers, 149, Queen Victoria-street, London, E.C., who will probably be able to inform you if the tablets are to be had here. If not, you must write direct to Pilsen.

E. F. T. BENNETT.—We have received yours, Messrs. S.'s notes, and the burner. We have tried these burners and have been much pleased with them, and have not found the results you have met with. Messrs. S.'s note appears to us to explain the cause of your failure. You must use a burner adapted for the quality of gas. Their offer is fair and candid—to let you have burners if you will inform them of the quality of the gas you burn. There must be some abnormal condition, as in our case the burners please well.

M. H. C.—Write to Mr. Maignen, 22, Great Tower-street, London, E.C., who will send full particulars of his filters, which are eminently adapted for your use. Remember, please, that *all* filters require attention and cleaning. Every filter, whatever its make, is only a dust-bin after all, which requires cleaning regularly and systematically.

J. G.—We are glad you think of adopting the plan set out in Miss Ballin's papers on "How to Clothe Children." The infant's back does not require support, since children should be kept in a reclining position until they sit up of their own accord, which will not be until they are strong enough not to require support. Compression of the navel does harm, not good. People are too anxious to improve upon nature. You may retain the flannel fastened loosely once or twice round the loins during the cold weather, but leave off the roller. Be careful to make the change in your infant's clothing gradually, lest it should take cold.

BEAUCLARION.—Have the ventilator (of the flue) placed at a lower level. A Sherringham valve placed opposite the inlet, if possible, would suit your purpose. Have you tried raising the bottom sash of the window three or four inches, and resting it on a bar of wood, so as to allow air to enter between the two sashes?

MEDICAL.

Y. E.—Through the winter you should try to take more or less regularly the cod-liver oil cream (of Mr. Thomson, chemist, Dublin-street, Edinburgh). This will give you some stamina. Your eye-troubles, &c., arise from a general want of tone. Give up the ointment, and beware of under-feeding. In your case, you cannot afford to go without meat once a day. Don't try foolish food-experimentation when you evidently need a liberal dietary.

VOLENS.—Don't take fluids late at night, and drink potash-water through the day. Take at night for a few alternate nights 15 grains bromide of potass in a wineglassful of water.

ANXIOUS.—No need to be alarmed. Use cold sponging every morning, take moderate open-air exercise, avoid fluids late at night, sleep on a hard mattress, and avoid all sources of irritation. If your general health is low, take for a time a teaspoonful of Fellow's "Syrup of the Hypophosphites" thrice daily, in a wineglassful of water before meals.

T. L. B.—Custard, rice-pudding, fowl, bread-and-butter, potatoes, cabbage, turnips, &c. Such is the order in general of their digestibility. You should give up all "cakes," &c., as these are indigestible, also salt meats of all kinds. Live on soups, milk, puddings, &c., for a time, and take a little Morson's "Pepsine" with meals.

R. GREEN.—See (and follow) advice to "Anxious" above.

HEADACHE.—You might with advantage try a complete vegetable dietary as an experiment for a time, and make it permanent if it benefits you. See that you live in a well-ventilated atmosphere. Take a little "Æsculap Water" each morning for the constipation and liver. 2. No animal foods necessary in such a case. 3. Yes; potatoes in moderate quantity will do no harm.

E. H. B.—Depends on the source of the colour. We cannot answer definitely, unless you send full particulars of health, habits, illness, &c.

J. MASON.—Possibly only a little irregularity: nothing serious, and probably due to some little irritation which only a consultation with a surgeon can definitely remove. In your case we fancy such a consultation would relieve your mind.

MAY, J.—There must be some constitutional cause for the loosening of the teeth. We should strongly advise, in your case, the taking of cod-liver oil for some time (a dessert-spoonful after meals), and of having a little syrup of iodide of iron (about half a drachm to the ounce of oil) added to the cod oil. This will give your system the tone it evidently needs. The full establishment of your general health should cure your teeth troubles.

G. SEYMOUR.—The differences in "command of the feelings" arise primarily from the constitution of the nervous system. Some persons possess an iron will, perfect command of feelings, indifference to emotion, &c., and others *vice versâ*. Nothing more can be said—except this—that a person in full health is less likely to be troubled with nervous symptoms than one in weak health.

LAYMAN.—No "ganglionic nerves" arise from the back of the head as you put it. Take nourishing soups, milk, &c., and a little meat (mutton or fowl) well cooked; few vegetables, except potatoes, cabbage, &c., and a little *good* claret and water with meals. A little "Pepsine" with the meals may also assist you. By all means apply at an eye hospital, since the spectacles don't seem to do you good.

ROSE VILLA.—You were replied to ("Still Hoping") in HEALTH, No. 36. Letters cannot be answered in the same week as that in which they are received. The case you name should be warned of the evil effects of such a practice. See and follow advice to "Anxious" above.

NINON.—1. Tincture of Benzoin (compound) is "Friar's Balsam;" it is excellent as an application to cuts and sores, and as an inhalation (ten drops in a pint of hot water) for colds. No use for the hands or skin. 2. For the pimples take the lime pills, to be made as follows:—Sulphide of lime, two grains; sugar of milk, forty grains. Divide into twenty pills, and take one every three hours. 3. Wrinkles cannot be removed.

SURVIVAL OF THE FITTEST.—A surgeon's aid is certainly necessary. On receipt of a stamped addressed envelope we can send you the address of a good surgeon in London. The operation would be a very simple one.

SLOANE.—We know nothing of the remedy. Why not try the advice given to "Mignon" in No. 35, HEALTH? Glad to help you further, if need be. Catarrh "patent" remedies are, as a rule, useless.

FROST IN THE FOOT.—Simply apply warmth, sleep in warm flannels, let the diet be generous, and avoid all chills. Rubbing with hot oil will also do good.

BERRY.—1. The "blackheads" in your face form the disease known as acne. To treat this affection, squeeze out the "blackheads," which are merely skin-ducts filled with their secretion; then wash the face frequently with soap and hot water, and apply eau-de-cologne or toilet vinegar. The "red wash" (sulphate of zinc, 20 grains; compound tincture of lavender, 2 drachms; and water up to half-a-pint) is also a useful application after the spots

have been pressed out. The general health must also be looked to. 2. See advice to "Anxious" above. 3. Macassar Oil is preferable.

Repentant.—You will never get well if you are so morbidly anxious about yourself. There is no need for such anxiety. Read and follow advice to "Anxious" in present number of Health. If you wish for our advice, you have now got it.

J. Rounnell.—Nothing beyond attention to your general health, and avoiding chills. You may have a weak circulation. Try the effect of a generous dietary, and take a little cod-liver oil after meals for a time to assist you.

Marjoribanks. — You need not be troubled. Take Morson's "Pepsine" with your food; continue the cold baths if you have sufficient reaction; take open-air (walking) exercise; and continue the cod-liver oil. The skin troubles will disappear when your general health is established.

T. Harrison.—Read and follow advice to "Anxious" in present number, and don't be alarmed. You will get quite well in time. For the face pimples try the sulphide of lime pills ordered to "Ninon," in present number.

G. Barker.—See reply to "T. Harrison" above.

Despondency.—See advice to "Anxious" in present number.

T. F. B.—See advice to "T. Harrison" above.

A. Montague.—We do not preserve letters; so please re-state your case. Your letter gives us no clue to your former communication or name under which you were replied to in Health.

H. W. B.—We can only repeat that your state of health is unsatisfactory, and, considering your symptoms, we should advise you to undergo a medical examination. No one, without such examination, can definitely pronounce on the symptoms you name, and such a course, besides, would relieve your mind, we think.

J. M'L.—We cannot promise to preserve your statement for any length of time. Such a course would involve an immense amount of labour and difficulty, were all our correspondents to write at such length as you do. In reply to your queries, we may simply refer you generally to the reply to "Anxious" in present number of Health. You have evidently (under your quack treatment) developed a turn for hypochondria. Give up all moody thoughts, and don't make your troubles (mostly fanciful) the great aim and end of your life. Live plainly and well; take moderate open-air exercise, and, above all, be cheerful, and give up morbid imaginings. For the voice try Lucas' "Bronchial Jelly," and the inhalations recommended to "Mignon" in No. 35, Health, may be tried for coughs and colds. See our article in No. 1, Health, on the care of the teeth. Use camphorated chalk. The quacks gave you the usual report. Such reports never vary—if they were otherwise, quacks' occupation would be gone.

A. B. C. D. E.—The bundle of pamphlets you send are quack ones in the purest sense. When a man puffs a patent medicine and warrants it to cure every disease, he becomes a quack, no less than the man who pretends to cure by faith; or the man who, putting two or three copper discs in a flannel belt, calls it an "electrical" or "magnetic belt," and charges five guineas for the article.

A. Fraser.—Yes; it contains a little quinine, but it is fair to add that many persons who cannot take quinine as ordinarily prescribed, can take the tonic you name with good results.

Sappho.—Not injurious if the child is not too young, and if the exercise is not carried to excess. Watch to see if liability to cough or soreness of the chest or stooping habits are induced; and stop the exercise when any of these symptoms appear. Otherwise there is nothing injurious.

G. S.—Yours is a case in which your mind has become morbid over your troubles, which are, after all, more fancied than real. In all such cases, there is a tendency to magnify the troubles, and you see things through "green spectacles." Try to be cheerful and less morbid. Seek cheerful society, and follow advice to "Anxious" in present number. You cannot expect to be well in a week, so persevere. If not better in, say, a month, write again; but we warn you that your cure must be as much mental as physical in its nature.

R. R.—1. Read Dr. Holmes's "Voice and Voice Production," lately reviewed in Health, and published by Messrs. Chatto & Windus, 214, Piccadilly, London, W., for full information regarding the voice. Price 2s. 6d. 2. We know nothing of the composition of the "Restorer" you name. We prefer "Macassar Oil" as a pure oil. 3. Never heard of "Foseline."

A. J. P.—Take a little "Æsculap" water occasionally in the mornings, and the lime pills ordered to "Ninon," in present No. of Health. If not improved, write again.

Panoptes.—Thanks for all your good wishes. Your symptoms are those of dyspepsia. See to the state of the bowels. Take "Æsculap Mineral Water" occasionally in the mornings as a liver-remedy, and Morson's "Pepsine" with your food. Also let your diet for a time consist of light puddings, fish, milk, light-boiled eggs, &c., and no meat. Give up tea and coffee, and let us hear how you are in a month's time.

J. B. X.—Read and follow advice to "G. S." above.

H. T. W.—Hot salt baths should do you good, say thrice a week. See also advice to "Panoptes" above. If the symptoms continue, see a medical man; but from your account, which is clear enough, you suffer from dyspepsia.

Interrogator.—1. State precisely the nature of the "spasms." 2. See well to the ventilation of your chimney or stove, and there can be no danger.

Miss Rose.—No remedy beyond taking great care of your general health. Clothe warmly, and take care of your digestion especially. Possibly, if it agrees with you, a teaspoonful of cod-liver oil emulsion taken twice or thrice daily would do you good.

C. S. M.—The sea voyage would do you most good—say to Australia or New Zealand. Hot salt baths are useful also. See also notice regarding digestive troubles given to "Panoptes" above.

W. Allen.—The person you consulted is a notorious quack. See and follow advice to "Anxious" in present number.

Viridis.—At your age we should not advise you to trouble much with medicine. Be generous to yourself in the matter of food, clothe warmly, and rest as much as possible. Your diet should also be light—milk, eggs, puddings, fish, soups, &c.

Wormeaten.—State the nature, appearance, &c., of the worms.

M. S.—We do not approve of such pamphlets, advertising as they do secret and mysterious remedies. It seems the "cures" are "faith cures" as much as anything else.

William II.—Nothing but a dye of one kind or another can accomplish what you wish. Simple oil (*e.g.*, Macassar Oil) will darken the hair somewhat without changing its hue. Read our papers on the "Hair" in the early parts of Health.

Great Toe.—Rest must be your chief cure. Possibly a mild blister or cold-water bandaging would do you good. But as the affection from which you suffer *may* depend on some constitutional trouble, you should see a physician, who may prescribe some internal remedy.

W. Martin.—You are an impatient correspondent. Ask your hairdresser what is the special good of singeing over cutting? There is no evidence (known to hair specialists) which establishes the advantage of singeing the hair. Restate your hair troubles—we do not preserve letters.

Incisor.—We prefer simple camphorated chalk or magnesia as a tooth-powder. Use it morning and night, with a medium brush as to hardness. No fluid tooth-washes or pastes are of real service in cleansing the teeth from tartar, &c. You must use a powder.

A Poor Man.—1. For piles, attend carefully to your diet, and avoid constipation above all. Take "Æsculap" water occasionally in the mornings; but a vegetable dietary may enable you to avoid the necessity for aperient medicines. 2. Get an ounce of the strong tincture of hamamelis, and put a teaspoonful of this tincture into an eight-ounce bottle of water, and take a teaspoonful of this mixture every three hours when the piles are troublesome. Then apply also a lotion of the tincture externally to the parts, such a lotion being made by adding two teaspoonfuls of the tincture to half a pint of water. The lotion should be applied on lint and renewed three or four times daily. Many chemists make an ointment of hamamelis, which is a useful application in place of the lotion.

An Actor.—Live plainly, food to be generous, no stimulants; don't overdo exercise, rest is necessary; vegetable dietary as an aperient; cod-liver oil, with syrup of iodide of iron added, might be taken occasionally; but the following should be taken for a tonic, and occasionally at intervals:—iodide of potass 2 drachms, infusion of calumba 6 ounces; a dessert-spoonful thrice daily. For the throat (when sore), use a lotion or gargle composed of biborate of soda 1 drachm, and glycerine 2 ounces.

Anxiety.—Under all the circumstances, we think the patient should see a physician, who may do much to relieve her state. We shall be glad to send you address of a reliable physician in London, on receipt of stamped addressed envelope. The case is one for examination and advice.

J. J. O.—Be very careful to avoid all irritation in the shape of stimulating or heating foods: the affection is probably caused by some error in diet. Give up all stimulants. Take an aperient (*e.g.*, "Friedrichshall" or "Æsculap" water) and the following tonic:—Citrate of iron and quinine a drachm and a half, carbonate of ammonia 2 drachms, tincture of orange-peel 2 ounces, water to make up 6 ounces. A dessertspoonful thrice daily. Apply locally a lotion comprised of bicarbonate of soda one drachm, and glycerine an ounce and a half. Let us hear how you are after a trial of this advice.

Wearied Out.—1. For lice in children's heads try carbolic oil (one part of carbolic acid to eight of oil). Strict cleanliness is necessary,

[*Continued on page* 192.

International Health Exhibition,

LONDON, 1884.

Patron—Her Most Gracious Majesty the Queen.
President—His Royal Highness the Prince of Wales, K.G.
Chairman—His Grace the Duke of Buckingham and Chandos, G.C.S.I.
Vice-Chairman—Sir James Paget, Bart., F.R.S.

Comprising Health in relation to food, dress, the dwelling, the school and the workshop.
And Education as far as relates to apparatus used in primary, technical, and art schools.
For full particulars, application should be made to the Secretary, International Health Exhibition, South Kensington, S.W.

120th Thousand, fcap. 8vo., 2s. 6d.

ADVICE TO A MOTHER ON THE MANAGEMENT OF HER CHILDREN, and on the Treatment in the Moment of their more pressing Illnesses and Accidents. By Pye Chavasse, F.R.C.S.

By the same Author.

140th Thousand, fcap. 8vo., 2s. 6d.

ADVICE TO A WIFE ON THE MANAGEMENT OF HER OWN HEALTH, and on the Treatment of some of the Complaints incidental to Pregnancy, Labour, and Suckling. With a chapter especially addressed to a Young Wife.

London:

J. & A. CHURCHILL, 11, New Burlington Street, W.

SKIN DISEASES
DUE TO
NERVOUS DERANGEMENTS.
THEIR CURATIVE TREATMENT.

By Dr. DOWSE.

PRICE TWO SHILLINGS.

PUBLISHED BY BAILLIÈRE, TINDALL, & COX,
King William Street, Strand.

A Physician's Sermon to Young Men. By W. Pratt, M.A., M.D. Fourth Thousand, price 1s,

"The delicate topic is handled wisely, judiciously, and religiously, as well as very plainly."—*The Guardian.*

London: BAILLIÈRE, TINDALL, & COX, 20, King William-street, Strand.

Just Published. With Thirty-Seven Illustrations. Price 1s.; in cloth, 1s. 6d.

"HOW TO USE OUR EYES, AND HOW TO PRESERVE THEM BY THE AID OF SPECTACLES,"

By JOHN BROWNING, F.R.A.S.

CHATTO & WINDUS, Piccadilly, London, W., and of all Booksellers.

Sent free for 1s. or 1s. 6d. by the Author, JOHN BROWNING, 63, Strand.

Just Published, Imp. 16mo., limp cloth, price 2s.

ENGLISH DATES IN RHYME,

Of the Principal Events in English History, from B.C. 55 to the Present Time.

By EDWIN ELLIS GRIFFIN.

The *Globe* says:—"One of those handy books which makes the study of chronology easy and popular."

London: WYMAN & SONS, 74-76, Great Queen-street, W.C.

PRINCES' HALL, PICCADILLY, LONDON, W.

Dr. Andrew Wilson's Popular Lectures
ON
ANATOMY AND PHYSIOLOGY.

Four Lectures will be delivered in the Princes' Hall, Piccadilly, London, W., by Dr. Andrew Wilson, F.R.S.E., &c., Editor of *Health*, as follows:—

LECTURE I.—THURSDAY EVENING, DEC. 27, 1883.
Subject, "The Bony Framework—The Skeleton."

LECTURE II.—MONDAY EVENING, DEC. 31, 1883.
Subject, "How We Move—Joints and Muscles."

LECTURE III.—WEDNESDAY EVENING, JAN. 2, 1884.
Subject, "The Heart and its Work in the Circulation of the Blood."

LECTURE IV. — SATURDAY EVENING, JAN. 5, 1884.
Subject, "Nerves, Brain, and Their Work."

The Lectures will be fully Illustrated by Lime Light Diagrams, &c.
The Lectures will commence each Evening at Eight o'Clock.
Doors open at 7.30; Carriages may be ordered at 9.20.

ADMISSION:
Sofa Stalls (Numbered and Reserved), 5s.; Sofa Stalls for Course of Four Lectures, 16s.; Reserved Seats (not Numbered), 3s.; Reserved Seats for Course of Four Lectures, 10s. 6d.; Balcony, 2s.; Balcony or Course of Four Lectures, 7s.; Back Seats, on Ground Floor of Hall, 1s.

Tickets and Syllabus may be obtained from Messrs. Chappell & Co., 50, New Bond Street, S.W., and 14, Poultry, E.C.; Austin's Ticket Office, 28, Piccadilly; and the usual Agents. All applications of a business nature are to be addressed to Mr. John Flack, 74, Great Queen-street, London, W.C.

CHATTO & WINDUS, Publishers.

Price Fourpence Monthly; by post, 5d.

SCIENCE GOSSIP:
A MONTHLY MEDIUM OF INTERCHANGE AND GOSSIP FOR STUDENTS AND LOVERS OF NATURE.
Edited by J. E. TAYLOR, F.L.S., &c.

THE CHEMICAL HISTORY OF A CANDLE. By Michael Faraday. Edited by W. Crookes, F.C.S. With numerous Illustrations. Crown 8vo., cloth extra, 4s. 6d.

ON THE VARIOUS FORCES OF NATURE. By Michael Faraday. Edited by W. Crookes, F.C.S. With numerous Illustrations. Crown 8vo., cloth extra, 4s. 6d.

MORE WORLDS THAN ONE, THE CREED OF THE PHILOSOPHER AND THE HOPE OF THE CHRISTIAN. By Sir David Brewster. Crown 8vo., with Plates, 4s. 6d.

THE MARTYRS OF SCIENCE. By Sir David Brewster. Crown 8vo., cloth extra, with full-page Portraits, 4s. 6d.

THE EARTH and MAN; or Physical Geography in its Relation to the History of Mankind. By Arnold Guyot. With 12 Maps, &c. Crown 8vo., cloth extra, 4s. 6d.

A POPULAR ASTRONOMY. By J. Rambosson. Translated by C. B. Pitman. Crown 8vo., with Illustrations, 7s. 6d.

LEISURE-TIME STUDIES, chiefly BIOLOGICAL. By Andrew Wilson, F.R.S.E. Crown 8vo., cloth extra, with Illustrations, 6s.

CHAPTERS ON EVOLUTION. A Popular History of the Darwin and Allied Theories of Development. By Andrew Wilson, F.R.S.E. Crown 8vo., cloth extra, with 300 Illustrations, 7s. 6d.

LEAVES FROM A NATURALIST'S NOTE-BOOK. By Andrew Wilson, F.R.S.E. Post 8vo., cloth limp, 2s. 6d.

SCIENCE IN SHORT CHAPTERS. By W. Mattieu Williams. F.R.A.S., F.C.S. Crown 8vo., cloth extra, 7s. 6d.

SCIENCE NOTES, by W. MATTIEU WILLIAMS, F.R.A.S., appear monthly in *THE GENTLEMAN'S MAGAZINE*, Price One Shilling.

CHATTO & WINDUS, PICCADILLY, W.

of course. The nits or eggs are best got rid of by washing the hair with vinegar and water, and then with plain water. If not successful, write again. You must wash their heads more frequently than once a week. 2. Plain cold water, or luke-warm milk and water for the eyes.

Nil Desperandum.—You are constitutionally nervous, but your symptoms are probably increased by a low state of health. See to your digestion: take "Pepsine" with your food, and try for a time the tonic recommended to "Anxious" in present number of Health. Let your food be very light (but nourishing) for a time.

CAUTION.

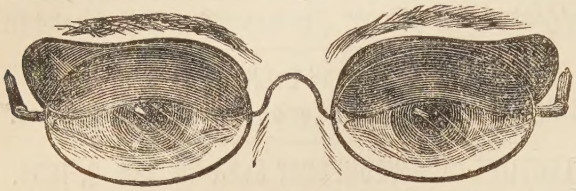
The ignorance of the public in Electrical matters is daily taken advantage of by unscrupulous would-be competitors of Pulvermacher's Genuine Electro-Curative Appliances.

In order to be protected against these harpies, patients should apply at once for Pulvermacher's pamphlet (just left the press), in which they will find undeniable proof of what is genuine and what is false.

Pamphlet post-free from

J. L. PULVERMACHER'S GALVANIC ESTABLISHMENT,
194, Regent-street, London, W.

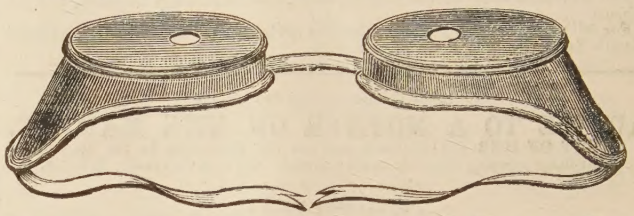
PRESERVE YOUR SIGHT BY USING
VALE'S PATENT SHADED SPECTACLE.



Price, post-free, in neat Leather Case, with best Crystal Glasses, 5s. 9d. each; with best Pebbles, 8s. 9d. each.

This new invention will be found invaluable by all who read much, as it effectually keeps the light from falling on the eyes or glasses, thus preventing any reflection, which, with the light, so often causes pain in the eyes and head after reading some time.

THE VISUALER.



Price, post-free, in neat Leather Case, with Elastic or Tape Band, 5s. 9d. each; with Steel Frame and Sides, 8s. 9d. each.

This unique article, after much trouble and study, has been brought to perfection, to remedy that peculiar and unfortunate defect of the eyes commonly termed squinting. It is the most efficient remedy, and will readily bring the eyes to their proper position. In ordering, please give width from centre to centre of eyes.

The above can be had of any Optician, or direct from the Makers—

HENRY VALE & SONS, Manufacturing Opticians, 219 and 220, Summer Lane, Birmingham.

DOWIE & MARSHALL

455, WEST STRAND

(Near to CHARING X and Opposite GRAND HOTEL),

LONDON.

MAKERS OF EASY BOOTS

FOR LADIES, GENTLEMEN, AND CHILDREN.

DOWIE & MARSHALL were awarded a Silver Medal at the Exhibition of Rational Dress, 1883. They also gained a Silver Medal at the National Health Society's Exhibition, 1883.

R. M. { READY MONEY / READY-MADE GOODS } DEPARTMENT

Now Open, in addition to the well-known

BESPOKE DEPARTMENT.

An Outline of each Foot and an old Boot are sufficient to provide measurement for supply of Goods from either Department.

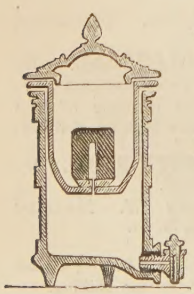
PRICE LIST GRATIS.

DOWIE & MARSHALL, 455, West Strand (Near to Charing X and opposite Grand Hotel), London.

(ESTABLISHED 59 YEARS.)

DOULTON & CO., LAMBETH, LONDON, S.E.

DOULTON'S MANGANOUS CARBON FILTERS (Dr. Bernays's Patent).



The Combination prepared under this Patent gives to the Charcoal its highest value as a

FILTERING MEDIUM.

The Filter is made in four movable parts—the body the lining, the manganous carbon block, and the cover. By this means every portion of the Filter may be

KEPT PERFECTLY CLEAN,

and the manganous carbon block may be changed as often as necessary without parting with the Filter.

SECTION.

IMPROVED GRANULAR CHARCOAL FILTERS.

These filters are fitted with a Block of Manganous Carbon surmounting the upper plate (as shown in woodcut), which can be readily removed for cleansing purposes. By this arrangement a double action is given to the power of the filtering media, and all Organic Material is entirely dispensed with.

Messrs. Doulton & Co. also manufacture Boudoir or Table Filters, Pocket and Syphon Filters for Tourists' use, Manganous Carbon Self-Acting Cistern Filters Refrigerator Filters, &c., &c. May be had of all Dealers.—DOULTON & CO., Lambeth Potteries, London, S.E.